

REMARKS

The present communication responds to the Office Action dated December 5, 2006. In that Office Action, the Examiner rejected Claims 1 and 3-17 under 35 U.S.C. § 102. The Examiner further rejected Claims 2 and 8 under 35 U.S.C. § 103(a). In response, Applicants have amended Claim 1, canceled Claim 17, and added Claim 18. In view of the amendments and the following remarks, Applicants request reconsideration and allowance of the pending claims.

Objections to the Drawings

The Examiner objected to the drawings for failing to show every feature of the invention. Particularly, the Examiner asserts that the pen-type injection device must be shown in the drawings or canceled from the claims. Applicants respectfully traverse the objection and assert that Figure 1 is a representational embodiment of an injection device, and an exemplary pen-type injection device is illustrated in Figure 1 as item 12. However, to advance prosecution of the application, Applicants have canceled Claim 17.

Rejections under 35 U.S.C. § 102

Claim 1, as amended, is directed to an injection device for injecting a medicament into a body. The injection device comprises, in part, “at least one capacitor for powering the drive system for performing at least one injection, wherein the at least one capacitor receives its charge from a charging device removably coupled to the injection device.” None of the references cited in the present office action disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device.

Claims 1, 3-7, 10, 11, and 13-16 were rejected under 35 U.S.C. § 102(b) as anticipated by Jess et al. (U.S. Patent 4,210,138). This rejection is traversed for at least the following reasons.

Jess does not disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device. Rather, Jess discloses a metering apparatus for a fluid infusion system. “Operating power for the fluid metering apparatus is supplied by means of two unidirectional current supplies 135 and 136 which receive operating

power from the AC line.” *Jess, Col. 8, ll. 37-40*. “A battery 138 is provided as an additional source of operating power in the event of failure of the AC line.” *Jess, Col. 8, ll. 40-42*. Jess does not disclose a capacitor for powering the infusion system. Furthermore, nowhere does Jess disclose at least one capacitor receiving a charge from a charging device removably coupled to the injection device. The mere fact that Jess discloses a capacitor does not make Jess a § 102 reference. Jess does not disclose “at least one capacitor for powering the drive system . . . wherein the at least one capacitor receives its charge from a charging device removably coupled to the injection device.”

Therefore, Claim 1 is patentably distinguishable from Jess. Claims 3-7, 10, 11, and 13-16, which depend from Claim 1, are also patentable for at least the same reasons. Reconsideration and withdrawal of the rejection are requested.

Claims 1, 3-8, 10, 11, and 13-16 were rejected under 35 U.S.C. § 102(b) as anticipated by Heilman et al. (U.S. Patent 3,701,345). This rejection is traversed for at least the following reasons.

Heilman does not disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device. Rather, Heilman discloses an injector control system for regulating the injection of fluid by sensing and controlling the position of the injector piston. *Heilman, Abstract*. Heilman discloses a memory capacitor 256 in a position memory circuit 72. *Heilman, Col. 11, l. 55-Col. 12, l. 44*. “The initial position memory circuit 72 will . . . memorize (retain) the voltage from the potentiometer corresponding to the position of the injector plunger immediately prior to the start of an injection.” *Heilman, Col. 12, ll. 13-17*. The initial position voltage memorized by the memory circuit is then summed with a voltage representing an amount of fluid to be injected to determine the final position of the injector plunger after injection of the fluid. *Heilman, Col. 12, ll. 22-42*. The memory capacitor of the memory circuit, or any other capacitor disclosed in Heilman, does not receive its charge from a charging device removably coupled to the injection device. Thus, Heilman does not disclose “at least one capacitor for powering the drive system . . . wherein the at least one capacitor receives its charge from a charging device removably coupled to the injection device.”

Therefore, Claim 1 is patentably distinguishable over Heilman. Claims 3-8, 10, 11, and 13-16, which depend from Claim 1, are also patentable for at least the same reasons. Reconsideration and withdrawal of the rejection are requested.

Claims 1, 3-7, 10, 11, and 13-17 were rejected under 35 U.S.C. § 102(b) as anticipated by Mulhauser et al. (U.S. Patent 5,919,167). This rejection is traversed for at least the same reasons that the § 102 rejections based on Jess and Heilman are, i.e., Mulhauser does not disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device.

Rather, Mulhauser discloses an apparatus for delivery of a fluid comprising an electronic control element, which releases at least one electric charge at predetermined time intervals. *Mulhauser, Abstract*. An internal battery 120 supplies electrical power to the electronic control element 122. *Mulhauser, Col. 5, ll. 30-31*. The electronic control element includes capacitors 126 for storing the charge from the internal battery. *Mulhauser, Col. 5, ll. 33-34*. Therefore, Claim 1 is patentably distinguishable over Mulhauser. Claims 3-7, 10, 11, and 13-17, which depend from Claim 1, are patentable for at least the same reasons. Reconsideration and withdrawal of the rejection are requested.

Claims 1, 3-7, 10, 11, and 13-16 were rejected under 35 U.S.C. § 102(b) as anticipated by Cable et al. (U.S. Patent 4,685,903). This rejection is traversed for at least the same reasons that the § 102 rejections based on Jess, Heilman and Mulhauser are, i.e., Cable does not disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device.

Cable discloses a programmable infusion pump. *Cable, Abstract*. A capacitor bank provides a power storage circuit for storing a charge for driving the pump mechanism. *Cable, Col. 7, l. 47-Col. 37*. The capacitor bank, however, receives its charge from the primary power source 11, consisting of batteries. *Cable, Col. 4, ll. 56-60*. Therefore, Claim 1 is patentably distinguishable from Cable, as are claims 3-7, 10, 11, and 13-16, which depend from Claim 1. Reconsideration and withdrawal of the rejection are requested.

Claims 1, 3, 9, 11-13 were rejected under 35 U.S.C. § 102(e) as being anticipated by Avrahami et al. (U.S. Patent 6,708,060). Like Jess, Heilman, Mulhauser and Cable, Avrahami does not disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device. Rather, Avrahami discloses a handheld device comprising a plurality of electrodes for treating skin on the body of a subject. *Avrahami, Abstract*. Avrahami discloses a power source in the device, particularly battery power sources. *See Avrahami, Col. 14, ll. 34-35; Col. 18, ll. 19-22; Col. 18, l. 66; Col. 19, l. 67-Col. 20, l. 2; Col. 21, ll. 41-49*. The capacitors disclosed in Avrahami receive their charges from the power source. In fact, Avrahami discloses that a typical operational sequence comprises, in part, “closing switch 214, which results in substantially all of the current from [power] source 212 going through and charging low-impedance capacitor 216.” *Avrahami, Col. 21, ll. 41-49*. Thus, Avrahami does not disclose “at least one capacitor for powering the drive system . . . wherein the at least one capacitor receives its charge from a charging device removably coupled to the injection device.” Reconsideration and withdrawal of the rejection are requested.

Claim 1 was rejected under 35 U.S.C. § 102(b) as anticipated by Hjertman et al. (U.S. Patent 6,042,571). Like the other § 102 rejections, this rejection is traversed because Hjertman does not disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device. Rather, Hjertman discloses an injection device having actuating means comprising motor means and an energy source. *Hjertman, Col. 9, ll. 24-25*. The energy source, for electrical motor means, may be “capacitors or preferably batteries.” *Hjertman, Col. 9, ll. 42-44*. There is no mention of a capacitor receiving “its charge from a charging device removably coupled to the injection device.”

Therefore, Claim 1 is patentably distinguishable over Hjertman. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejections under 35 U.S.C. § 103

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jess et al. This rejection is traversed for at least the following reasons.

As discussed previously, Claim 1, as amended, is directed to an injection device for injecting a medicament into a body comprising, in part, “at least one capacitor for powering the drive system for performing at least one injection, wherein the at least one capacitor receives its charge from a charging device removably coupled to the injection device.” Jess fails to disclose, teach, or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device. Therefore, Claim 1 is not made obvious by Jess. Claim 2, which depends from claim 1, is also not made obvious by Jess for at least the same reasons, and reconsideration and withdrawal of the rejection is requested.

Claim 8 was rejected under 35 U.S.C. § 103(a) as unpatentable over Jess et al. in view of Portner et al. (U.S. Patent 4,360,019). As pointed out above, Jess does not disclose or suggest at least one capacitor receiving a charge from a charging device removably coupled to the injection device.

Portner fails to remedy the deficiencies of Jess. Portner discloses an implantable infusion device. *Portner, Abstract.* The implantable circuit comprises a primary battery and a storage capacitor. *Portner, Col. 9, ll. 8-14.* The battery cannot provide the high peak currents necessary to energize the solenoid, so pulse energy is stored in the capacitor just prior to delivery of an energy pulse. *Id.; Col. 9, ll. 24-26.* The capacitor in the implantable circuit receives its charge from the primary battery. *Id.* Thus, Portner does not provide the disclosure or teaching missing from Jess, i.e., charging a capacitor using a charging device removably coupled to the injection device.

Reconsideration and withdrawal of the rejection are requested.

Independent Claim 18

Independent Claim 18 is directed to an injection system for injecting a medicament into a body comprising, in part, “an injection device comprising . . . at least one capacitor for powering the drive system . . . the at least one capacitor providing the sole electric power source for the injection device; and a charging device capable of removably coupling with the injection device for charging the at least one capacitor.” No new matter has been added by the addition of Claim

18. Support may be found in Applicants' specification in at least paragraphs [0018], [0022], and [0026]-[0029].

Claim 18 is not anticipated or made obvious by any of the references cited in the present office action for at least the reasons that Claim 18 comprises "at least one capacitor providing the sole electric power source for the injection device" and "a charging device capable of removably coupling with the injection device for charging the at least one capacitor." Consideration and allowance of new Claim 18 are requested.

Conclusion

This response is being submitted on or before June 5, 2007, with the required fee of \$1,020.00 for a three-month extension of time, making this a timely response. It is believed that no additional fees are due in connection with this filing. However, the Commissioner is authorized to charge any additional fees, including extension fees or other relief which may be required, or credit any overpayment and notify us of same, to Deposit Account No. 04-1420.

The application now stands in allowable form, and reconsideration and allowance are requested.

Respectfully submitted,

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